

THAT WHICH IS CLAIMED:

1. An isolated polypeptide selected from the group consisting of:
- 5 (a) a polypeptide comprising an amino acid sequence set forth in SEQ ID NO: 2, 4, 7, or 9;
- (b) a polypeptide encoded by a nucleotide sequence comprising the sequence set forth in SEQ ID NOS: 1, 3, 6, or 8;
- (c) a polypeptide comprising an amino acid sequence encoded by a
10 nucleotide sequence deposited as Accession No. PTA-284, PTA-285, PTA-286, PTA-287, or PTA-288;
- (d) a polypeptide comprising an amino acid sequence encoded by a nucleotide sequence obtained from the overlapping clones deposited as Accession No. PTA-284 and PTA-285;
- 15 (e) a polypeptide encoded by a nucleotide sequence that hybridizes under stringent conditions to a nucleotide sequence comprising the sequences set forth in SEQ ID NOS: 1, 3, 6, or 8;
- (f) an amino acid sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 4, wherein said sequence has LOX-like activity;
- 20 (g) an amino acid sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 9, wherein said sequence has SCIP-1-like activity;
- (h) an amino acid sequence having at least 70% sequence identity to the sequence set forth in SEQ ID NO: 2, wherein said sequence has rhoGAP-like activity; and,
- 25 (i) an amino acid sequence having at least 90% sequence identity to the sequence set forth in SEQ ID NO: 7, wherein said sequence has ADH-like activity.

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- 30 2. An isolated nucleic acid molecule selected from the group consisting of:
- (a) a nucleic acid molecule comprising a nucleotide sequence set forth in SEQ ID NO: 1, 3, 6 or 8;

(b) a nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence set forth in SEQ ID NO: 2, 4, 7 or 9;

(c) a nucleic acid molecule comprising a nucleotide sequence deposited as Accession Nos. PTA-284, PTA-285, PTA-286, PTA-287, or PTA-288;

5 (d) a nucleic acid molecule comprising a nucleotide sequence obtained from the overlapping clones deposited as Accession No. PTA-284 and PTA-285;

(e) a nucleic acid molecule comprising an antisense sequence corresponding to a sequence of a), b), c), or d);

(f) a nucleic acid molecule comprising a nucleotide sequence that
10 hybridizes under stringent conditions to the nucleotide sequences of a), b), c), d), or e), wherein said sequence encodes a polypeptide having rhoGAP-, LOX-, SCIP-1, or ADH-like activity;

(g) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 1, wherein said
15 sequence encodes a polypeptide having rhoGAP-like activity;

(h) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 3, wherein said sequence encodes a polypeptide having LOX-like activity;

(i) a nucleic acid molecule comprising a nucleotide sequence having
20 at least 60% sequence identity to the sequence set forth in SEQ ID NO: 6, wherein said sequence encodes a polypeptide having ADH-like activity; and,

(j) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 8, wherein said sequence encodes a polypeptide having SCIP-1-like activity.

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3. A DNA construct comprising a nucleotide sequence of claim 2, wherein said nucleotide sequence is operably linked to a promoter that drives expression in a host cell.

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4. A cell having stably incorporated into its genome at least one DNA construct comprising a nucleotide sequence operably linked to a promoter that drives

expression in said cell, wherein said nucleotide sequence is selected from the group consisting of:

- (a) a nucleic acid molecule comprising a nucleotide sequence set forth in SEQ ID NO: 1, 3, 6 or 8;
- 5 (b) a nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence set forth in SEQ ID NO: 2, 4, 7 or 9;
- (c) a nucleic acid molecule comprising a nucleotide sequence deposited as Accession Nos. PTA-284, PTA-285, PTA-286, PTA-287, or PTA-288;
- (d) a nucleic acid molecule comprising a nucleotide sequence obtained
10 from the overlapping clones deposited as Accession No. PTA-284 and PTA-285;
- (e) a nucleic acid molecule comprising an antisense sequence corresponding to a sequence of a), b), c), or d);
- (f) a nucleic acid molecule comprising a nucleotide sequence that
15 hybridizes under stringent conditions to the nucleotide sequences of a), b), c), d), or e), wherein said sequence encodes a polypeptide having rhoGAP-, LOX-, SCIP-1, or ADH-like activity;
- (g) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 1, wherein said sequence encodes a polypeptide having rhoGAP-like activity;
- 20 (h) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 3, wherein said sequence encodes a polypeptide having LOX-like activity;
- (i) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 6, wherein said
25 sequence encodes a polypeptide having ADH-like activity; and,
- (j) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 8, wherein said sequence encodes a polypeptide having SCIP-1-like activity.

- 30 5. The cell of claim 4, wherein said cell is a plant cell.

6. A transformed plant having stably incorporated into its genome at least one DNA construct comprising a nucleotide sequence operably linked to a heterologous promoter that drives expression in a plant cell, wherein said nucleotide sequence is selected from the group consisting of:

- 5 (a) a nucleic acid molecule sequence comprising a nucleotide sequence set forth in SEQ ID NO: 1, 3, 6 or 8;
- (b) a nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 2, 4, 7 or 9;
- 10 (c) a nucleic acid molecule comprising a nucleotide sequence deposited as Accession Nos. PTA-284, PTA-285, PTA-286, PTA-287, or PTA-288;
- (d) a nucleic acid molecule comprising a nucleotide sequence obtained from the overlapping clones deposited as Accession No. PTA-284 and PTA-285;
- (e) a nucleic acid molecule comprising an antisense sequence
- 15 corresponding to a sequence of a), b), c), or d);
- (f) a nucleic acid molecule comprising a nucleotide sequence that hybridizes under stringent conditions to the nucleotide sequences of a), b), c), d), or e), wherein said sequence encodes a polypeptide having rhoGAP-, LOX-, SCIP-1, or ADH-like activity;
- 20 (g) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 1, wherein said sequence encodes a polypeptide having rhoGAP-like activity;
- (h) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 3, wherein said
- 25 sequence encodes a polypeptide having LOX-like activity;
- (i) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 6, wherein said sequence encodes a polypeptide having ADH-like activity; and,
- (j) a nucleic acid molecule comprising a nucleotide sequence having
- 30 at least 60% sequence identity to the sequence set forth in SEQ ID NO: 8, wherein said sequence encodes a polypeptide having SCIP-1-like activity.

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7. The DNA construct of claim 5 wherein said promoter is selected from the group consisting of:
- (a) a nucleic acid molecule comprising a nucleotide sequence having the sequence set forth in SEQ ID NO: 5 or SEQ ID NO: 10;
 - (b) a nucleic acid molecule deposited as Accession No. PTA-559 or PTA-1721;
 - (c) a nucleic acid molecule comprising a nucleotide sequence that hybridizes under stringent conditions to the nucleotide sequences of a) or b) wherein said sequence retains the ability to regulate transcription; and,
 - (d) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to a sequence set forth in SEQ ID NOS: 5 or 10, wherein said sequence retains the ability to regulate transcription.
8. The plant of claim 6, wherein said promoter is a constitutive promoter.
9. The plant of claim 6, wherein said promoter is a tissue-preferred promoter.
10. The plant of claim 6, wherein said promoter is an inducible promoter.
11. The plant of claim 10, wherein said promoter is a pathogen-inducible promoter.
12. The plant of claim 6, wherein said plant is a monocot.
13. The plant of claim 12, wherein said monocot is maize, wheat, rice, barley, sorghum, or rye.
14. The plant of claim 6, wherein said plant is a dicot.
15. The transformed seed of the plant of claim 6.

16. A method for enhancing a plant defense response, said method comprising stably introducing into the genome of a plant at least one DNA construct comprising a nucleotide sequence operably linked to a heterologous promoter that drives expression in a plant cell, wherein said nucleotide sequence is selected from the group consisting of:

(a) a nucleic acid molecule sequence comprising a nucleotide sequence set forth in SEQ ID NO: 1, 3, 6 or 8;

(b) a nucleic acid molecule comprising a nucleotide sequence encoding an amino acid sequence set forth in SEQ ID NO: 2, 4, 7 or 9;

10 (c) a nucleic acid molecule comprising a nucleotide sequence deposited as Accession Nos. PTA-284, PTA-285, PTA-286, PTA-287, or PTA-288;

(d) a nucleic acid molecule comprising a nucleotide sequence obtained from the overlapping clones deposited as Accession No. PTA-284 and PTA-285;

(e) a nucleic acid molecule comprising an antisense sequence
15 corresponding to a sequence of a), b), c), or d);

(f) a nucleic acid molecule comprising a nucleotide sequence that hybridizes under stringent conditions to the nucleotide sequences of a), b), c), d), or e), wherein said sequence encodes a polypeptide having rhoGAP-, LOX-, SCIP-1, or ADH-like activity;

20 (g) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 1, wherein said sequence encodes a polypeptide having rhoGAP-like activity;

(h) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 3, wherein said sequence encodes a polypeptide having LOX-like activity;

(i) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 6, wherein said sequence encodes a polypeptide having ADH-like activity; and,

(j) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to the sequence set forth in SEQ ID NO: 8, wherein said sequence encodes a polypeptide having SCIP-1-like activity.

- (a) a nucleic acid molecule comprising a nucleotide sequence having the sequence set forth in SEQ ID NO: 5 or SEQ ID NO: 10;
- (b) a nucleic acid molecule deposited as Accession No. PTA-559 or PTA-1721;
- 5 (c) a nucleic acid molecule comprising a nucleotide sequence that hybridizes under stringent conditions to the nucleotide sequences of a) or b) wherein said sequence retains the ability to regulate transcription; and,
- (d) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to a sequence set forth in SEQ ID NOS: 5 or 10, wherein
- 10 said sequence retains the ability to regulate transcription.

21. A cell having stably incorporated into its genome at least one DNA construct comprising a nucleotide sequence encoding a protein of interest operably linked to a promoter, wherein said promoter is selected from the group consisting of:

- 15 (a) a nucleic acid molecule comprising a nucleotide sequence having the sequence set forth in SEQ ID NO: 5 or SEQ ID NO: 10;
- (b) a nucleic acid molecule deposited as Accession No. PTA-559 or PTA-1721;
- (c) a nucleic acid molecule comprising a nucleotide sequence that
- 20 hybridizes under stringent conditions to the nucleotide sequences of a) or b) wherein said sequence retains the ability to regulate transcription; and,
- (d) a nucleic acid molecule comprising a nucleotide sequence having at least 60% sequence identity to a sequence set forth in SEQ ID NOS: 5 and 10, wherein said sequence retains the ability to regulate transcription.

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22. The cell of claim 21, wherein said cell is a plant cell.

23. A method of regulating the expression of a nucleotide sequence of interest, said method comprising stably incorporating in the genome of a plant cell a nucleotide

30 sequence of interest operably linked to a promoter comprising the nucleotide sequence of claim 17.

24. The method of claim 23, further comprising contacting said cell with a stimuli that induces expression of said nucleotide sequence of interest.

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